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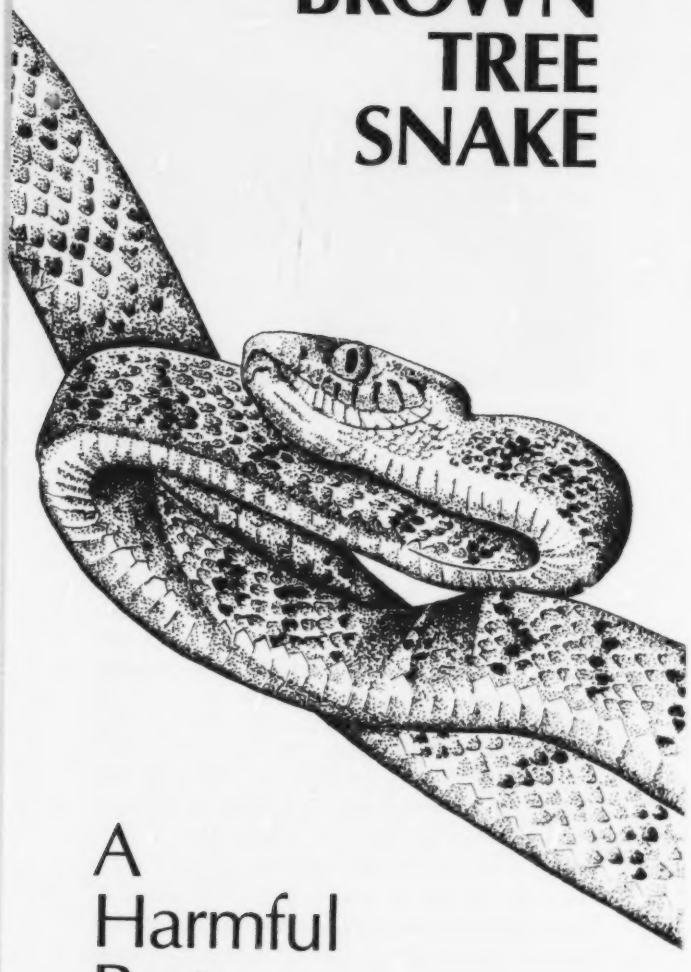
THE BROWN TREE SNAKE



A Harmful Pest Species

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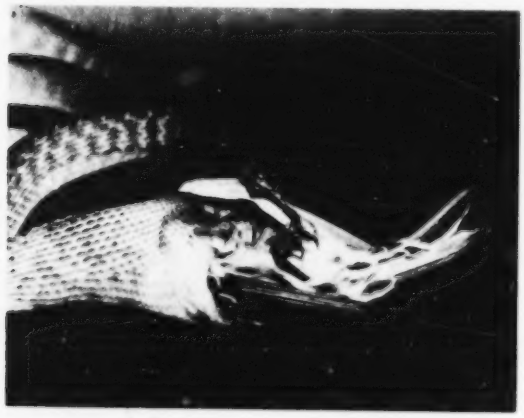
A PEST SPECIES

The brown tree snake *(Boiga irregularis)* is an introduced species on Guam that has become a serious pest. The snakes probably arrived on Guam hidden in ship cargo from the Papua New Guinea area, about 800 miles to the south. The first sightings were inland from the seaport in the early 1950s. Snakes became conspicuous throughout central Guam by the 1960s, and by 1968 they had probably dispersed throughout the island.

In the absence of natural predators and other population controls on Guam, the snakes have now become an exceptionally common pest causing major ecological and economic problems on the island.

EXTINCTION OF BIRDS

The brown tree snake has virtually wiped out the native forest birds of Guam. Nine species of birds, some found nowhere else, have disappeared from this island, and several others persist in precariously low numbers close to extinction. Some introduced birds better adapted to resist snake predation persist on Guam only in urban areas and other developed sites where snake density is limited by human activity and inappropriate habitat conditions.



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DANGER TO MAN

The brown tree snake is aggressive when threatened. It will often raise the anterior body in a striking position, flatten the head and neck to appear larger, and attempt to bite as it lunges forward. Adults can reach lengths of 8 ft and weights of 5 lb.

The brown tree snake is mildly poisonous. It kills its prey by chewing to inject the venom. It is not known to be dangerous to man, but special precautions should be taken to keep snakes away from infants and small children. Bites should be carefully cleaned, the person bitten should be monitored closely, and if any unusual symptoms appear, medical attention should be sought.

The snake is relatively strong and holds its prey by wrapping its body around the animal. Snakes can be easily removed by unwrapping them starting at the head or tail. The brown tree snake poses no danger of strangulation or injury from constriction to adult humans, but with infants and small children the possibility of suffocation or poisoning exists.

DANGER TO OTHER ISLANDS

Snakes are frequently accidental stowaways in cargo leaving Guam and, unless intercepted, may become established on other islands. Economic and ecological programs like those currently present on Guam would be likely to develop if the brown tree snake reaches other Pacific Islands.

In addition to Guam, brown tree snakes have been sighted on Saipan, Kwajalein, Wake, Oahu, and Diego Garcia, and other sightings on Pohnpei may have involved brown tree snakes. To date, however, this snake is not known to be established on any of these islands except Guam. The governments of Hawaii, Guam, Palau, Commonwealth of the Northern Mariana

Islands, and Federated States of Micronesia have taken steps to prevent the spread of the snakes to other islands.

WHAT CAN BE DONE?

Travelers, cargo handlers, and Pacific Island residents alike share in the responsibility to protect island environments from this pest species. Careful inspection of materials, cargo, and baggage shipped from or through Guam is necessary to prevent the dispersal of snakes to other islands. With increased awareness and careful inspection of cargo arriving from Guam, it may be possible to prevent the spread of the brown tree snake to other islands. The cooperation of civilian and military federal agencies, other Pacific Island governments, and a wide range of Gov-Guam agencies is needed to address this important problem.

ORIGINS OF THE SNAKE

The snake is native to the Solomon Islands, Papua New Guinea, and the northern coast of Australia. The brown tree snake does not occur in the Philippines or farther west than Sulawesi, Indonesia. Thus, it is incorrect to refer to the snakes on Guam as Philippine rat snakes.

HABITATS AND HIDING SPOTS

This snake is an able climber and is most at home in trees and shrubs, where it forages at night using its keen sense of smell and sensitive night vision to find lizards, birds, and mammals. It frequently invades homes, commercial buildings, and other urban habitats in search of food and hiding spots. Any site that provides protection from bright light and high temperatures is a potential daytime retreat. Snakes can coil their flexible bodies in extremely confined spaces when hiding.

REPRODUCTION

The brown tree snake reproduces by depositing up to 12 eggs with leathery shells perhaps twice per year. The eggs are abandoned by the female in caves, hollow trees, or in other places, where they hatch if adequately protected from drying and overheating.

The young snakes are about 18 inches in length when they hatch about 90 days later, but may reach lengths of 3 feet in about 1 year. Snakes are about 4 to 5 feet long and about 3 years old when they first reproduce.

OTHER SNAKES ON PACIFIC ISLANDS

Not all snakes are bad. Palau has four native snakes that do not cause major problems. In Palau, native snakes should not be indiscriminately killed or confused with the brown tree snake. Prior to the arrival of the brown tree snake, Guam had only one other snake, a tiny blind snake, harmless to man, that lives in the soil and feeds on the eggs and young of termites and ants. The blind snake is dark grey or black in color and is the only snake occurring on many islands in the central Pacific region.

REPORT SNAKE SIGHTINGS

Any snake sightings on islands thought to lack snakes should be reported immediately to local government officials, and, when possible, the snake should be preserved for positive identification. Specimens can be preserved in ordinary alcohol. Specimens, photographs, or other information should be sent to:

U.S. Fish and Wildlife Service, Fish and Wildlife Enhancement, P.O. Box 50167, Honolulu, Hawaii, 96850, U.S.A.

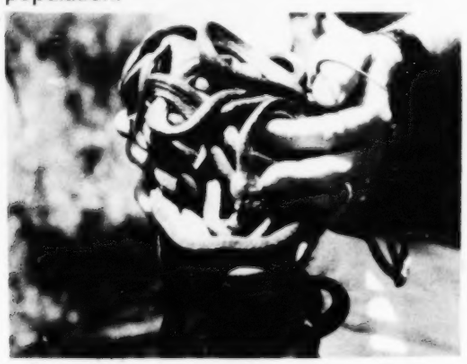
OTHER DAMAGES

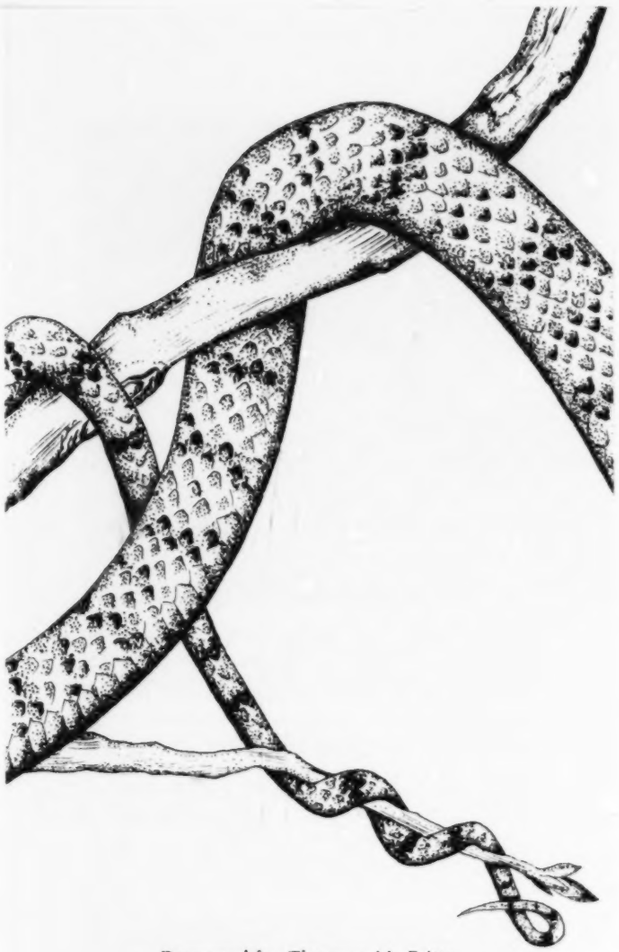
Snakes crawling on electrical lines frequently cause power outages and damage electrical lines maintained by Guam Power Authority and Naval Public Works. Island wide power outages caused by snakes and the resulting damage to electrical equipment are significant economic burdens to nearly all civilian and military activities on Guam. The power interruptions cause a multitude of problems ranging from food spoilage to computer failures.

The snakes feed on a wide variety of animals including lizards, birds, and small mammals as well as bird and reptile eggs. Snakes frequently invade poultry houses, homes, and yards to consume domestic poultry, eggs, pet birds, and small mammals associated with residential areas.

ABUNDANCE

Up to 12,000 snakes per square mile may occur in some forested areas of Guam. Many snakes are killed by automobile traffic and island residents. Others are electrocuted while climbing on electrical lines, but despite this mortality, snake abundance remains high in nearly all forested and urban habitats throughout Guam. Pigs and monitor lizards eat snakes, but these predators are ineffective in lowering the snake population.





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